AMENDMENTS TO THE CLAIMS

1-43. (canceled)

44. (new) A method of operating a medical perfusion system comprising the steps of:

mechanically interconnecting a plurality of perfusion devices in a configuration for providing oxygenation, filtering, and recirculation of blood;

connecting respective adapter pods to at least two of said perfusion devices, said adapter pods each including a device connector and a common connector;

electrically interconnecting a communication bus to said adapter pods and a controller; and

transmitting a plurality of data packets containing configuration messages from said controller to said adapter pods;

wherein said configuration messages include a pump configuration message for configuring a pump included in said plurality of perfusion devices; and

wherein said configuration messages include device association data for establishing a device association between two of said perfusion devices that persists even if there is a subsequent failure of said controller.

45. (new) The method of claim 44 wherein said perfusion devices comprise a sensing device and an actuator, and wherein said device association comprises a feedback link for causing said sensing device to send sensed data to said actuator.

46. (new) The method of claim 45 wherein said actuator comprises a pump.

47. (new) The method of claim 44 wherein said device association comprises a trigger link between a trigger source and a trigger respondent.

48. (new) The method of claim 44 wherein said device association comprises a master/slave relationship between two of said perfusion devices.